

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No. : 10/599,399 Confirmation No. : 8260
Applicant : Sarah Michelle Lipman, et al.
Filed : March 16, 2007
Title : CONTROL APPARATUS
Art Unit : 2629
Examiner : Antonio J. Xavier
Docket No. : POW2B-83992 | P2B11002USU
Customer No. : 34408
Date : July 20, 2011

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

DECLARATION OF SARAH M. LIPMAN UNDER 37 C.F.R. § 1.132

Dear Sir:

I, Sarah M. Lipman, hereby declare as follows:

1. I am one of the named inventors of the above-identified patent application.
I submit this declaration in support of the applicant's response to the final Office action mailed January 20, 2011, to overcome the examiner's rejections.
2. My qualifications were stated in my November 1, 2010 declaration which I incorporate herein by reference.
3. In preparation for making this declaration, I reviewed the above-identified patent application, the file history, the pending claims, the final Office action mailed January 20, 2011, and the examiner cited prior art.

4. I would like to specifically address the examiner's statements under the caption "Official notice of Lambertian surfaces" and his conclusions about Lambertian surfaces set forth on pages 3-6 of the January 20, 2011 final Office action, as follows:

5. Background on Lambertian Surface. A Lambertian surface in an idealized state, describes an ideally diffusely reflecting surface which reflects light falling upon it in such a generally equal manner in every direction. Whereas a non-Lambertian surface (for example, a glossy, polished table) will vary in its observed brightness depending on the angle of the viewer or sensor (for example, usually the highest level of reflectance is at the normal, with the level of reflective brightness decreasing as one moves the observation/measurement point toward the parallel to the surface); a surface exhibiting Lambertian reflectance will appear to reflect light equally in all directions of angle from the surface.

6. Typically (although this is not a required feature of a Lambertian surface), Lambertian reflectance behavior is achieved on a rough (not polished or shiny) surface, which serves to diffuse the light more evenly. For example, SPECTRALON® (a fluoropolymer sold by Labsphere) is considered to be the material with the highest diffuse reflectance known, with a reflectance of 98-99%.

7. The type of "scattering" discussed in the context of Lambertian surfaces describes the diffusion and reflection of the light from the surface and away from it. Therefore, Lambertian characteristics pertain only to light reflected away from the surface material and not those propagated within it. In contrast, applicant's claimed invention uses "scattering" in the context of a surface material propagating light within itself.

8. Applicant's Use of the Term "Scatter." The examiner appears to conclude that applicants' invention claims the scattering of the light within the Lambertian surface. To clarify, one of applicants' embodiments cited in the pending specification (page 18, lines 26-28) is directed to a **placing TWO surfaces in propinquity to one another to create a compound panel**: the first surface has Lambertian properties which

efficiently reflects light evenly, generally proportional to the cosine of the θ (angle) between the observer's line of sight and the surface normal ("cosine emission law"); the light reflected by the Lambertian surface then enters the second surface, for example, a glass panel (inherently not a Lambertian surface) which allows a large percentage of the Lambertian reflected light to pass through itself, but also propagates ("scatters") a percentage of that light to its edges, where it is sensed.

9. Thus, the examiner's use of the term "scattered" for the Lambertian reflection is a different phenomenon from applicants' use of "scattered" to describe the panel propagated light within the panel.

10. Regarding Examiner's Cited Nayar et al. In the case of U.S. Patent Application Publication No. 2004/0070565 (Nayar et al.), raised by the examiner as an example of a Lambertian surface used to propagate light for sensing by a sensor, it is clear that Nayar discloses a Lambertian surface reflecting light externally away from itself directly to peripheral detectors.

11. Regarding the Examiner Combining Oikawa With Lipman. The examiner says (bottom of page 7 of the final Office action) that "It would have been obvious to one of ordinary skill in the art to modify the detection system of Oikawa to include the stylus and angle detection of Lipman to provide advanced functionality resulting in an intuitive and responsive user interface." The examiner further states that "However, Oikawa in view of Lipman fails to expressly teach a panel without an optical guide and scattering particles therein" (page 8, second paragraph; emphasis original). The examiner then posits that the claimed subject matter would have been obvious to a person having ordinary skill in the art by substituting a Lambertian surface for applicants' claimed "panel without an optical guide and scattering particles within," and that the "results would have been predictable."

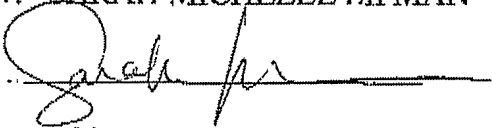
12. As explained above, a Lambertian surface is not substitutable physically or phenomenologically for applicants' "panel without an optical guide and scattering particles within." The results obtained by providing a Lambertian surface in place of a

"panel without an optical guide and scattering particles" would not provide predictable results regarding variable distance and variable angle of the beam of light emitted by the beam emitter.

* * *

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under § 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of inventor: SARAH MICHELLE LIPMAN

Inventor's signature: 

Date: July 20, 2011

Residence: Jerusalem, Israel

Citizenship: United States

Post Office Address: 2-B Sorotzkin Street
Jerusalem, Israel 94423